REMARKS

Claims 1, 3-8, 10, 12-15, 17-19, 21-24, 26-42, 44, 45, 47-51 and 53-56 were previously pending in this application. Claim 11 is allowed, claim 3 is amended herein, no claims have been canceled and claims 57-58 are added. As a result, claims 1, 3-8, 10, 12-15, 17-19, 21-24, 26-42, 44, 45, 47-51 and 53-58 are pending for examination, with claims 1, 7, 12, 17, 22, 26, 30, 37, 40, 44, 49, 53 and 56 being independent claims. No new matter has been added.

Claim Objections

In paragraph 2, the Office Action objects to claim 3 for being of improper dependent form for depending from cancelled claim 2. The Applicants have amended claim 3 to depend from claim 1, and respectfully request that the objection to claim 3 be withdrawn.

Rejections Under 35 U.S.C. §102 (b)

Claims 26, 27, 30, 37, and 53-56 are rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,799,323, to Mosher, Jr., et al. ("Mosher"). The Applicants respectfully traverse this rejection.

A. Claims 26-29

Claim 26 recites a method, in a computer system having at least first and second backup storage systems to each store backup data from at least one client, comprising an act of receiving information related to backup activities of the second backup storage system at the first backup storage system.

The Office Action contends that Mosher discloses the limitations of claim 26. It is respectfully asserted that this is unsupported by the reference, as Mosher discloses nothing at all about receiving information related to backup activities of a second backup storage system at a first backup storage system.

The Office Action contends that the primary system of Mosher (depicted as element 110 in Fig. 1) corresponds to the first backup storage system of claim 26, that the remote backup system of Mosher (element 122, Fig. 1) corresponds to the second backup storage system of claim 26, and that Mosher discloses (in col. 6, lines 59-65) that information related to backup

activities of the second backup storage system are received at the first backup storage system. This interpretation is unsupported by the disclosure of Mosher.

Mosher does not teach that elements 110 and 122 comprise first and second backup storage systems, as the Office Action alleges. Mosher states, in a passage which is cited by the Office Action, that "[o]n the primary computer system 110, an RDF Extractor Process 130 reads the master audit trail (MAT) 104, which is a log maintained by the transaction management facility (TM/MP) of all database transactions that affect audited files, and sends any audit records associated with RDF protected volumes to an RDF Receiver Process 132 on the backup computer system" (col. 6, lines 59-65). Thus, element 110 is not a <u>backup storage</u> system as the Office Action asserts, but is simply a computer system on which an extractor process 130 and monitor process 140 execute. Mosher does not disclose or suggest that computer 110 performs any backup storage activities. Indeed, Mosher states that data read by Extractor Process 130 is written immediately to message buffers which are transmitted to the Receiver Process 132 (col. 7, lines 7-23). Thus, element 110 of Mosher cannot correspond to the first backup storage system of claim 26 as the Office Action contends.

In addition, Mosher provides no disclosure of transferring information between backup storage systems. Mosher discloses a system comprising compartmentalized components, wherein information related to backup activities of any "second backup storage system" (e.g., system 122) is maintained on that system. Mosher does not disclose any information related to backup activities being transferred from element 122 to element 110. Instead, referring to Fig. 2, Mosher teaches that the Receiver Process 132 writes information received from the Extractor Process 130 to one of two image trails 136, 138, and information on the outcome of each backup transaction to a TST file (col. 7, lines 66-67 and col. 8, lines 1-7). All of this information is maintained on system 122. Nowhere does Mosher disclose that any information related to backup activities of a second backup storage system, including the information stored in these files, is received at a first backup storage system.

For each of the reasons discussed above, Mosher does not anticipate claim 26. Accordingly, the Applicants respectfully request the withdrawal of the rejection of claim 26 under 35 U.S.C. §102(b).

Claims 27-29 depend from claim 26 and are allowable for at least the same reasons.

B. Claims 30-36

Claim 30 recites a first backup storage system to store backup data from at least one first client, the first backup storage system for use in a computer system having a second backup storage system to store backup data from at least one second client, the first backup storage system comprising a first controller, coupled to the second backup storage system, to receive information related to backup activities of the second backup storage system.

As discussed above in connection with claim 26, Mosher does not disclose a first backup storage system that receives information related to backup activities of a second storage system. Accordingly, the Applicants respectfully request withdrawal of the rejection of claim 30 under 35 U.S.C. §102(b).

Claims 31-36 depend from claim 30 and are allowable for at least the same reasons.

C. Claims 37-39

Claim 37 recites a computer readable medium encoded with a program for execution on a computer system that includes first and second backup storage systems coupled together, the first and second backup storage systems each storing backup data from at least one client. The program, when executed on the computer system, performs a method comprising an act of transferring information related to backup activities of the second backup storage system between the second backup storage system and first backup storage system.

As should be clear from the discussion above in connection with claim 26, Mosher does not teach or suggest transferring information related to the backup activities of a second backup storage system to a first backup storage system. Thus, claim 37 patentably distinguishes over Mosher, and the Applicants respectfully request withdrawal of the rejection of claim 37 under 35 U.S.C. §102(b).

Claims 38 and 39 depend from claim 37 and are allowable for at least the same reasons.

D. Claims 53-55

Claim 53 recites a method, in a computer system having at least one backup storage system to store backup data from at least one client, comprising acts of determining an occurrence of an event at which a report of information related to backup activities of the at least

one backup storage system is to be generated; and automatically generating the report when it is determined that the event has occurred.

The Office Action does not apply the disclosure of Mosher to the specific limitations of claim 53. For this reason alone, the rejection is believed to be improper. In addition, Mosher does not disclose or suggest determining an occurrence of an event upon which a report of information related to backup activities of at least one backup storage system is to be generated, and certainly does not disclose automatically generating the report when it is determined that the event has occurred. The Office Action (in connection with claims 54-55 at page 4) points to col. 7, lines 1-3 as purportedly teaching automatic report generation. This citation is misplaced, as the cited section refers to **processes** 102 and 130 proceeding automatically and says nothing at all about automatic report generation.

In view of the foregoing, the Applicants respectfully request withdrawal of the rejection of claim 53 under 35 U.S.C. §102(b).

Claims 54 and 55 depend from claim 53 and are allowable for at least the same reasons.

E. Claim 56

Claim 56 recites a method, in a computer system having at least one backup storage system to store backup data from at least one client, of providing information related to backup activities of the at least one backup storage system, the backup activities including the backing up of at least one work item associated with the at least one client, comprising an act of, when the at least one work item is backed up more than once in a given time period by the at least one backup storage system, providing only status of a most recent backup of the at least one work item.

The Office Action makes no attempt to apply the disclosure of Mosher to the specific limitations of claim 56, so that the rejection is believed to be improper. In addition, Mosher does not disclose or suggest a method comprising an act of, when a work item is backed-up more than once in a given time period by a backup storage system, providing only a status of a most recent backup of the work item. Accordingly, the Applicants respectfully request withdrawal of the rejection of claim 56 under 35 U.S.C. §102(b).

Rejections Under 35 U.S.C. §103 (a)

Claims 1, 3-8, 10, 12-15, 17-19, 21-24, 28-29, 31-36, 38-42, 44-45, and 47-51 are rejected under 35 U.S.C. §103(a) as being unpatentable over Mosher in view of U.S. Patent No. 6,148,415 to Kobayashi et al. ("Kobayashi"). The Applicants respectfully traverse this rejection.

I. The Purported Motivation for the Combination Is Not Supported by the References.

The purported motivation for the combination set forth by the Office Action is unsupported by the references. First, the Office Action alleges that one of ordinary skill in the art would have been motivated to apply the teachings of Kobayashi to Mosher, "because the teaching about the domain provides high benefits in access control between users and their backup system." (Office Action, page 5). This assertion is entirely without support in Kobayashi or elsewhere. The Office Action asserts that "Clearly, Kobayashi teaches using a domain in backup operations" (Office Action, page 5), but this assertion is without citation to any portion of Kobayashi that purportedly supports it. Applicants' representatives have performed an on-line search of Kobayashi, and the word "domain" is not used at all. It is entirely unclear what it is in Kobayashi that the Office Action believes teaches a domain, let alone a domain that would clearly "provide high benefits and access control between users and their backup system." Thus, it is respectfully asserted that the assertion in the Office Action that Kobayashi teaches a domain that would have motivated one of ordinary skill in the art to make any modification to Mosher is entirely without support in the art of record.

Second, the Office Action contends that one of skill in the art would have been motivated to apply the teaching of Kobayashi to the system of Mosher to provide "fast access to the backup system by address." Such a technique would be inapplicable to the system disclosed by Mosher. Mosher simply does not disclose a system wherein an address is used to access a backup system.

Finally, the Office Action contends that applying the teachings of Kobayashi would reduce the searching time for a backup system. This assertion is not only unsupported by Kobayashi, but is directly contradicted by it. Kobayashi teaches that a particular operating processor is paired selectively with a particular backup processor (col. 5, lines 44-46). Thus, Kobayashi does not disclose or suggest searching for a backup system as suggested in the Office Action. Furthermore, even if Kobayashi did disclose searching for a backup system, such a

teaching would be inapplicable to the system of Mosher, which does not require searching for a backup system, but rather teaches the pre-assignment of a dedicated backup system.

For the reasons discussed above, the purported motivation for the combination is unsupported by the asserted references. Thus, the combination of Mosher and Kobayashi under §103 is improper, such that the rejection of claims 1, 3-8, 10, 12-15, 17-19, 21-24, 28-29, 31-36, 38-42, 44-45, and 47-51 under §103 as being obvious over this combination is improper and should be withdrawn.

A. Claims 1 and 3-6

Claim 1 recites a computer system, comprising a plurality of backup storage systems including at least first and second backup storage systems to each backup information stored on at least one client; and at least one user interface, coupled to at least the first and second backup storage systems, to receive information related to backup activities of the first and second backup storage systems; wherein the plurality of backup storage systems includes a third backup system to backup information stored on at least one client, the third backup storage system being coupled to the at least one user interface; and the computer system includes at least one domain that includes at least the first and second backup storage systems and the at least one user interface, the at least one domain excluding the third backup storage system so that the at least one user interface is not authorized to receive information related to backup activities of the third backup storage system.

The Office Action contends that Mosher teaches the limitations of claim 1, with the exception of a domain that includes at least first and second backup storage systems and the at least one user interface, and excludes the third backup storage system. The Office Action also contends that Kobayashi teaches a domain, and that it would have been obvious to one skilled in the art to apply the teachings of Kobayashi to the system of Mosher, because of "high benefits and access control between users and their backup system," "fast access to the backup system by the address," and reduced time "for searching a respective backup system to backup data." As stated above, none of these contentions are supported by the asserted references.

In addition, the asserted combination does not meet several of the limitations recited by claim 1.

First, the Office Action contends that Mosher teaches at least one user interface coupled to at least first and second backup storage systems, as recited by claim 1. In paragraph 6, the Office Action refers to element 140 (Figure 2) of Mosher in support of this contention. This reliance is misplaced, as Mosher does not disclose or suggest that Monitor Process 140 comprises a user interface. Mosher states that Monitor Process 140 tracks how far a backup process lags behind the local process that writes records to the MAT, so that it can determine how long it might take the RDF system to synchronize the backup database with the primary database if the primary system were to fail (col. 22, lines 29-33). Mosher does not disclose or suggest that Monitor Process 140, or any other component, comprises a user interface coupled to at least first and second backup storage systems.

Second, the Office Action contends that Kobayashi teaches a domain. As mentioned above, an automated search of the disclosure of Kobayashi indicates that the word "domain" is not used once, and it is unclear where the Office Action finds such a teaching. In support of this contention, the Office Action cites a passage (col. 5, lines 40-49) in which Kobayashi merely discloses a plurality of operating processors that are respectively connected to a corresponding plurality of backup processors via a common communication channel, and wherein an operating machine is combined selectively with a particular backup machine by use of their addresses. It is not clear where the domain is believed to be disclosed. However even assuming arguendo that the configuration disclosed by Kobayashi comprises a domain, it would not meet the limitations of claim 1, as the configuration of Kobayashi does not comprise a domain which includes first and second backup storage systems but excludes a third backup storage system, as recited in claim 1.

Finally, the Office Action makes no attempt to explain how the asserted combination discloses a user interface which receives information related to backup activities of first and second backup storage systems, but is not authorized to receive information related to backup activities of a third backup storage system. Thus, the Office Action fails to explain and support the rejection as required by 37 CFR 1.104(c)(2) and MPEP §706.02(j).

For the reasons discussed above, the combination of Mosher and Kobayashi fails to disclose the limitations of claim 1. As a result, claim 1 is not rendered obvious by the asserted combination. Accordingly, the Applicants respectfully request that the rejection of claim 1 (as well as claims 3-6 that depend therefrom) under 35 U.S.C. §103(a) be withdrawn.

B. Claims 7-10

Claim 7 recites a method, in a computer system including at least first and second backup storage systems to each backup information stored on at least one client, and at least one user interface coupled with the first and second backup storage systems. The method comprises an act of receiving, at the at least one user interface, information related to backup activities of the first and second backup storage systems; wherein the computer system further includes a third backup storage system to backup information stored on at least one client, the third backup storage system being coupled to the at least one user interface, the computer system further including at least one domain that includes at least the first and second backup storage systems and the at least one user interface and excludes the third backup storage system; and wherein the act of receiving information includes an act of receiving, at the at least one user interface, only information related to backup activities of backup storage systems included in the at least one domain, so that the at least one user interface does not receive information related to backup activities of the third backup storage system.

As should be appreciated from the discussion above relating to claim 1, the prior art of record does not teach or suggest a method of receiving information related to backup activities of first and second backup storage systems included in a domain, but not receiving information relating to a backup storage system outside the domain. Therefore, claim 7 patentably distinguishes over the prior art of record, such that the rejection of claim 7 under 35 U.S.C. §103(a) should be withdrawn.

Claims 8-10 depend from claim 7 and are allowable for at least the same reasons.

C. Claims 12-15

Claim 12 recites a method, in a computer system including at least one user interface and at least one backup storage system to store backup data from at least one client, comprising an act of receiving information related to backup activities of the at least one backup storage system at the at least one user interface over a path that is not dedicated to transporting information between the at least one backup storage system and the at least one user interface; wherein the at least one backup storage system includes a first backup storage system and second backup storage system; the computer system includes at least one domain that includes at least the first

backup storage system and the at least one user interface and excludes the second backup storage system; and the act of receiving information includes an act of receiving, at the at least one user interface, only information related to backup activities of backup storage systems included in the at least one domain, so the at least one user interface does not receive information related to backup activities of the second backup storage system.

As should be appreciated from the discussion above with respect to claim 1, the asserted combination fails to teach a method in a system including a user interface and a domain that includes at least a first backup storage system and the user interface and excludes a second backup storage system, and wherein only information related to backup activities of backup storage systems in the domain are received at the user interface, as recited in claim 12. Accordingly, the Applicants respectfully request that the rejection of claim 12 under 35 U.S.C. §103(a) be withdrawn.

Claims 13-15 depend from claim 12 and are patentable for at least the same reasons.

D. Claim 17-19 and 21

Claim 17 recites a user interface for use in a computer system having at least one backup storage system, the at least one backup storage system to store backup data from at least one client, the user interface comprising at least one controller, to be coupled to the at least one backup storage system, to receive information related to backup activities of the at least one backup storage system over a path that is not dedicated to transporting information between the at least one backup storage system and the user interface; wherein the at least one backup storage system includes a first backup storage system and a second backup storage system; the computer system includes at least one domain that includes at least the first backup storage system and the user interface and excludes the second backup storage system; and the controller receives only information related to backup activities of backup storage systems included in the at least one domain, so that the user interface does not receive information related to backup activities of the second backup storage system.

As should be appreciated from the foregoing, the prior art of record does not teach a user interface comprising at least one controller that receives only information related to backup activities of backup storage systems included in a domain. Therefore, claim 17 patentably

distinguishes over the prior art of record, such that the rejection of claim 17 under 35 U.S.C.
§103(a) should be withdrawn.

Claims 18, 19 and 21 depend from claim 17 and are allowable for at least the same
reasons.

E. Claims 22-24

Claim 22 recites a computer readable medium encoded with a program for execution on a
computer system that includes at least one user interface and at least one backup storage system
to store backup data from at least one client, the program, when executed on the computer
system, performing a method comprising an act of: receiving information related to backup
activities of the at least one backup storage system at the at least one user interface over a path
that is not dedicated to transporting information between the at least one backup storage system
and the at least one user interface; wherein the at least one backup storage system includes a first
backup storage system and a second backup storage system; the computer system includes at
least one domain that includes at least the first backup storage system and the at least one user
interface and excludes the second backup storage system; and the act of receiving information
includes an act of receiving, at the at least one user interface, only information related to backup
activities of backup storage systems included in the at least one domain, so that the at least one
user interface does not receive information related to backup activities of the second backup
storage system.

Claim 22 is directed to a computer readable medium encoded with a program which,
when executed on a computer system, performs a method substantially similar to the method
recited in claim 12. Therefore, for the reasons set forth above with respect to claim 12, claim 22
patentably distinguishes over the prior art of record, such that the rejection of claim 22 under 35
U.S.C. §103(a) should be withdrawn.

Claims 23 and 24 depend from claim 22 and are allowable for at least the same reasons.

F. Claims 40-42

Claim 40 recites a method, in a computer system having at least one user interface and at
least one backup storage system to store backup data from at least one client, comprising an act
of transmitting information related to backup activities of the at least one backup storage system

to the at least one user interface over a path that is not dedicated to transporting information between the at least one backup system and the at least one user interface; wherein the at least one backup storage system includes a first backup storage system and a second backup storage system, wherein the computer system includes at least one domain that includes at least the first backup storage system and the at least one user interface and excludes the second backup storage system; and wherein the act of transmitting information includes an act of transmitting the information related to the backup activities of the first backup storage system within the at least one domain, so that the information related to the backup activities of the first backup storage system is not transmitted to the second backup storage system.

As should be appreciated from the foregoing, the prior art of record does not teach or suggest a method of transmitting information in a computer system including at least one domain that includes a first backup storage system and a user interface but excludes a second backup storage system, the method including an act of transmitting information from the first backup storage system within the domain to the user interface. Therefore, claim 40 patentably distinguishes over the prior art of record, such that the rejection of claim 40 under 35 U.S.C. §103(a) should be withdrawn.

Claims 41 and 42 depend from claim 40 and are allowable for at least the same reasons.

G. Claims 44-45, 47 and 48

Claim 44 recites a first backup storage system to store backup data from at least one client, the first backup storage system for use in a computer system having at least one user interface, the first backup storage system comprising: at least one controller to transmit information related to backup activities of the first backup storage system to the at least one user interface over a path that is not dedicated to transporting information between the first backup storage system and the at least one user interface; wherein the computer system includes a second backup storage system, and at least one domain that includes the first backup storage system and the at least one user interface and excludes the second backup storage system; and wherein the at least one controller transmits the information related to the backup activities of the first backup storage system only within the at least one domain, so that the at least one controller does not transmit the information related to the backup activities of the first backup storage system to the second backup storage system.

As should be appreciated from the foregoing, the prior art of record does not teach or suggest a first backup storage system comprising at least one controller that transmits information relating to the backup activities of the first backup storage system only within a domain. Thus, claim 44 patentably distinguishes over the prior art of record, such that the rejection of claim 44 under 35 U.S.C. §103(a) should be withdrawn.

Claims 45, 47 and 48 depend from claim 44 and are allowable for the same reasons.

H. Claims 49-51

Claim 49 recites a computer readable medium encoded with a program for execution on a computer system that includes at least one user interface and at least one backup storage system to store data from at least one client, the program, when executed on the computer system, performing a method comprising an act of: transmitting information related to backup activities of the at least one backup storage system to the at least one user interface over a path that is not dedicated to transporting information between the at least one backup system and the at least one user interface; wherein the at least one backup storage system includes a first backup storage system and a second backup storage system, wherein the computer system includes at least one domain that includes at least the first backup storage system and the at least one user interface and excludes the second backup storage system; and wherein the act of transmitting information includes an act of transmitting the information related to backup activities of the first backup storage system only within the at least one domain, so that the first backup storage system does not transmit the information related to the backup activities of the first backup storage system to the second backup storage system.

Claim 49 is directed to a computer readable medium encoded with a program which, when executed on a computer system, performs a method substantially similar to the method recited by claim 40. Therefore, for the reasons set forth above with respect to claim 40, claim 49 patentably distinguishes over the prior art of record, such that the rejection of claim 49 under 35 U.S.C. §103(a) should be withdrawn.

Claims 50 and 51 depend from claim 49 and are allowable for the same reasons.

Allowable Subject Matter

The Applicants note with appreciation the Examiner's indication that claim 11 is allowed.
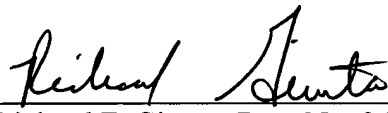
New Claims

Claims 56 and 57, which each depend from independent claim 26, have been added to further define the Applicants' contribution to the art. Each is patentable over the prior art of record for at least the same reasons as claim 26.

CONCLUSION

In view of the foregoing amendments and remarks, this application should now be in condition for allowance. A notice to this effect is respectfully requested. If the Examiner believes, after this amendment, that the application is not in condition for allowance, the Examiner is requested to call the Applicant's attorney at the telephone number listed below.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, the Applicants hereby request any necessary extension of time. If there is a fee occasioned by this response, including an extension fee that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 23/2825.

Respectfully submitted,
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